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Business-Information Systems Strategies: A Focus on Misalignment

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Abstract

Due to business dynamics and complexities, aligning information systems to the organizational strategy goals has appeared to be a concern for researchers and practitioners over the last decade. The challenge of achieving this alignment becomes even more severe and demanding day after day. Many published research is rich with regards to alignment models and frameworks. However, there is little in the literature that explains what managers should do with these frameworks, other than understand them conceptually. Although these models address how organizations can achieve alignment, they provide very little contribution on how to identify misalignment. Therefore, this paper focuses on this research gap in an attempt to develop a conceptual model that detects business-IS strategies misalignment. Accordingly, a three-phased research process (Model Development, Multiple Case Studies, and Model Refinement) is conducted to propose a well-defined conceptual model of five constructs (Business-IT relationship, IT Projects, Business-IT Communication, Business-IT Engagement, and Business-IT Strategic Misalignment). The model is an attempt to allow managers better understand business-IS strategic misalignment, and easily detect the areas of improvements to enhance the alignment level existing among the business and the technological assets of an enterprise. This research resulted in a business-IS strategic misalignment model refined by business and IT experts.

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Keywords: Business-IS Strategy; Strategy Alignment; Misalignment.

1. Introduction

Henderson and Venkatraman [1] argued that the inability to realize value from information systems (IS) investment is, in part, due to the misalignment, or the lack of alignment between business and IS strategies of organizations. Going through the literature, business-IS strategic alignment remains a key topic of concern among managers worldwide. Although several authors presented models and frameworks describe different business

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domains that need to be connected in some way to achieve better strategic alignment. Still, these models remain fairly high level being too theoretical and not capturing real life; describing the domains that should be aligned but not in what way this can be achieved in practice [2].

Unfortunately there is little in the literature at present that explains what a manager should do with these frameworks other than understand them conceptually [3]. Additionally, they all address how organizations can achieve alignment, but with very little contribution on how to identify and correct misalignment [4].

For these reasons, there becomes a need for further real world mechanisms that would provide better understanding to the misalignment nature between business and IS. Thus, the objective of this paper is to address the alignment concern, focusing on the problem of understanding and managing the misalignments, that compromise the achievement of business and information systems alignment, by means of a conceptual model. Thus, a conceptual model is developed to identify misalignment, and hence ensure an ongoing alignment between both strategies; business and IS.

The structure of the paper is divided into five sections. The next section illustrates the relevant literature review that describes the business strategy, the information systems strategy and the implication of business-IS misalignment on organizational performance. This section is followed by an overview on the particularly influential and state-of--art models and approaches on strategic alignment available in the literature, along with their pitfalls and criticism. Thereafter, a core discussion illustrates the research methodology that consisted of the development of the research instrument, the construction of the strategic misalignment model, and the results from three case studies and expert panel executed for this research. Subsequently, a more well-defined and enhanced model is presented to in response to the panel of experts' comments and insights. This is followed by conclusion and future work.

2. Business and IS Strategic Misalignment

As misalignment can be seen as crossing the roads with many of the business-IS alignment research domain, this section presents what is alignment versus misalignment, the four main alignment dimensions, followed by the alignment implications on organizational performance.

2.1. What is Alignment versus Misalignment?

Due to business dynamics and complexities, aligning information systems to the organizational strategy goals has appeared to be a concern for researchers and practitioners over the last decade. The challenge of achieving this alignment becomes even more severe and demanding day after day [5].

The term alignment, can be defined as the extent to which information systems support and have a positive relationship with the organization's objectives and strategies as defined in the business plan in an appropriate and timely way [6, 7, 8, 9, 10]. Although business-IS alignment has been extensively studied, achieving it has been very challenging [8, 11, 12, 13]. Traditional approaches address how organizations can achieve alignment, but with little contribution on how to identify and correct misalignment.

The first explicit focus on misalignment research was sponsored by Luftman [10], when proposed to identify a set of symptoms or factors of misalignment that organizations might experience, indicating that an organization is not optimized. Although this approach does not provide an explicit definition for misalignment, it unfolds two relevant intentions: (i) misalignments might be expressed by symptoms, and (ii) misalignment inhibits organizations to be optimized and achieve its full potential.

Therefore, misalignment between business and information systems, likewise alignment, is a major issue and an unsolved problem in today's complex and dynamic organizational world, recognized as an interesting approach to understand and promote the alignment between business and information systems. Thus, within the context of this research, business-IS misalignment, or the lack of alignment between business and IS strategies of organizations, can be defined as *the continuous efforts, involving management and information systems, of consciously and coherently detecting and testing for the interrelation of all components of the business-IT relationship; where a change in one would instantly influence the other, contributing to the organization's performance over time.*

2.2. Alignment Dimensions

Throughout the literature, several dimensions of alignment are clearly stated; including formal and informal structures. The formal structure includes the strategic and intellectual, and the structural dimensions, while the informal structure includes the social and the cultural dimensions [2].

In accordance to the strategic and intellectual dimension, strategic alignment refers to the degree to which the business strategy and plans, and the IT strategy and plans, complement and match each other. Under this perspective, it is difficult for alignment to occur in an organization that lacks formal documented plans [14, 15].

Moreover, the structural dimension refers to the degree to which there is a structural fit between the IT and the business, which is influenced by the location of IT decision-making rights, reporting relationships, centralization versus decentralization of IT, and the deployment of IT personnel [16].

The social dimension of strategic alignment refers to the state in which business and IT executives within an organizational unit understand and is committed to the business and IT mission, objectives, and plans [2, 17]. For high alignment, IT personnel and business staff must collaborate together at all of the organizational level. Yet this may be hindered by many issues such as understaff of IT, communication barriers, history of business-IT relationships, attitudes of organization members to IT, shared domain knowledge, and leadership [2, 18].

Finally, the cultural dimension highlights the cultural fit between business and IT as a precondition for successful IS planning [19]. Regardless the adopted IS planning approach, for it to be effective, it needs to be aligned with the organization's cultural elements such as the business planning style, top management communication style, and behavioral change [2, 20].

To that regard, table 1 maps the four dimensions of alignment to the most commonly researched alignment measures. Moreover, it can be noticed that most of the measures are related to the strategic and intellectual dimension. Also, any of the measures can be considered part of more than one dimension.

Table 1. Business-IT Alignment Measures match to Alignment Dimensions

Alignment Factor	Strategic and Intellectual Dimension	Structural Dimension	Social Dimension	Cultural Dimension
IT vision availability	*			
IT vision is well communicated across organization	*			
The corporate business plan is made available to the IS management	*			
Business goals and objectives are made available to the IS management	*			
Allocation of adequate resources	*	*		
IT projects have senior business sponsors	*			
IT projects reflection to business plans	*		*	
IT budget allocation based on priorities set by the business or IT priorities		*		
Business managers initiation to IT projects		*		
IT initiation IT projects		*		
Reason behind most IT projects	*			*
Contact frequency between the CEO and CIO			*	
Communication type between business and IT		*	*	*
Presence and efficiency of IT-business liaison staff in organization			*	
The CIO participates and contributes to the business planning		*		*
The CEO contributes to the IT planning		*		*

Business and IT shared domain knowledge			*	
Business knowledge is considered when selecting a new CIO	*			
IT knowledge is considered when selecting new business managers	*			
Business management has enough IT knowledge to discuss and judge IT projects	*			*
IT Management has enough business knowledge to use IT as strategic instrument	*			*

2.3. Alignment Implications on Organizational Performance

Business and IS performance implications of alignment have been demonstrated empirically through many case studies during the last decade [2, 4, 21, 22, 23, 24, 25, 26, 27]. All of which have found that those organizations that successfully align their business strategy with their IS strategy outperform those that do not [2, 28].

Strategic business-IS alignment has shown to be a key predictor of IS investment profitability, particularly for today's information intense firms [1, 29]. Alignment processes that promote knowledge sharing are essential in determining profitability, such that, they imply a shared vision, commitment, and a plan for addressing areas considered critical to success [13, 30]. Thus, leading to a more focused and strategic use of IS which in turn leads to increased organizational performance, improved decision making processes and enhanced managerial outcomes [28, 31, 32, 33, 34].

3. Strategic Alignment Models and Frameworks

In the course of time, many models have been developed to measure the strategic alignment of an organization. Table 2 presents only few alignment models that have been particularly influential, along with their criticism.

Table 2. Criticism of Existing Alignment Measures

Model	Criticism
MIT Framework [35]	Only focused on the internal aspects of an organization.
Strategic Alignment Model (SAM) [36]	Depending on how IT-intensive an industry is, the SAM model's applicability may vary, as the model's assumptions may not hold [37]
Enablers and Inhibitors of Alignment [38]	Focused solely on the communication and support, between business and technology management, related aspects.
The Generic Framework [39, 40]	Although covers three alignment dimensions, the strategic and intellectual, structural, and cultural, it disregards the social dimension of alignment.
The Integrated Architecture Framework [41]	Would be very beneficial when initially designing the organization's architectures, yet not very practical for detecting misalignments and refining them to achieve alignment.
The Unified Framework [40]	While the unified framework combines the generic framework and IAF, it also combines the disadvantages of both frameworks. In addition, the unified framework does not incorporate practical tools to correct misalignment and achieve alignment.
The Alignment Factor Categories [42]	This model can be applied to the reasonably well-aligned organizations that are willing to improve their business-IT alignment. However, the model has not been tested on organizations that are badly misaligned.

Although many studies have incorporated concepts from these models over time, these models still remain fairly high level being too theoretical and not capturing real life; describing the domains that should be aligned but not in what way this can be achieved in practice, with very little contribution on how to identify and correct misalignment [2, 4]. For these reasons, there becomes a need for mechanisms that would provide better understanding to the misalignment nature between business and IS.

4. Model Development and Refinement

Consequently, and based on the research gap, the main objective of this paper is to focus on the problem of understanding and managing the misalignments, and the factors that compromise the achievement of business and IS alignment. Therefore, the research question this paper seeks to answer is:

RQ: *How to detect Business-IS strategy misalignments through developing a conceptual model?*

4.1. Research Process

In order to adequately explore the above mentioned research question, a qualitative research design was adopted for better in-depth understanding and interpretation of situations and behaviors. Furthermore, to provide a better understanding of the nature and key aspects of misalignment, multiple case studies conducted in different industries would be more sufficient to the purpose of the research. Cross-case analysis comparison would enhance further investigation of the phenomenon in diverse settings. In accordance to Gutierrez et al. [21] although small and medium organizations have different characteristics in terms of resources and IT expertise than large organizations, the factors that are relevant to attain alignment seem to be relevant in all organizations regardless their size or industry.

Accordingly, a purposive (non-probabilistic) sampling technique was conducted to target organizations' top managers and executives, who have an impact when strategically planning for either the business strategy or the information system strategy. This is due to the fact that they could clearly highlight the variables and constructs that can directly or indirectly affect business-IT misalignment. Moreover, to further refine the research outcome, an expert panel with different strategic information technology planners and experts would be conducted.

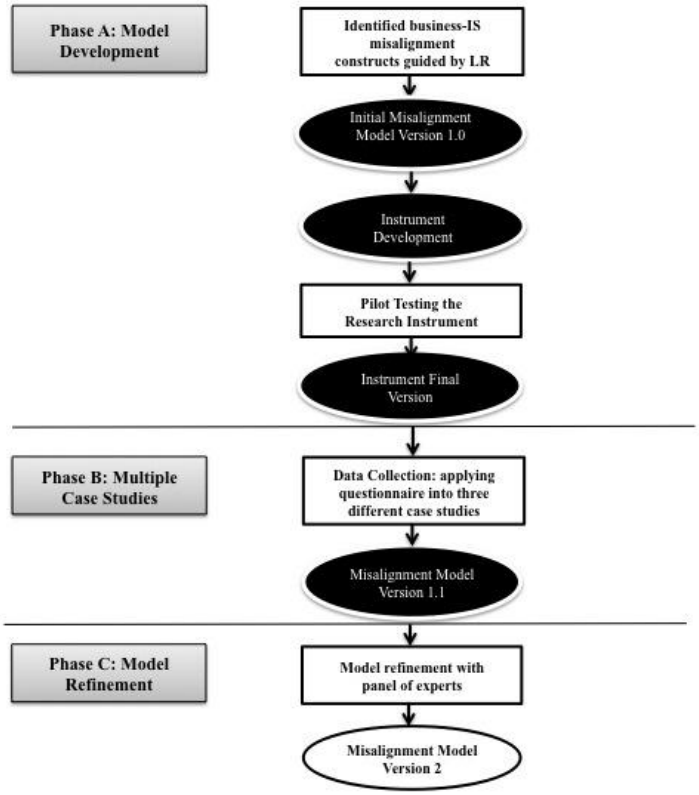

Fig. 1. Research Process

4.2. Development of Business –IS Misalignment Instrument

Operationalization is to define a multi-dimensional subjective concept, such as business-IS misalignment, to understand the different elements and characteristics upon which this concept can be evaluated [43, 44]. For that purpose, construct measures and attributes for detecting strategic alignment and misalignment have been deducted through reviewing the literature, synthesized in Table 1. However, since the focus of this research is on misalignment, a further misalignment construct had to be added to tailor the model in response to the research objective. Accordingly, the resulting five constructs were: Business-IT relationship, IT Projects, Business-IT Communication, Business-IT Engagement, and Business-IT Strategic Misalignment, which formulated an initial misalignment model – version 1.0, presented in Figure 2. Also, Table 3 provides definitions to these five main constructs.

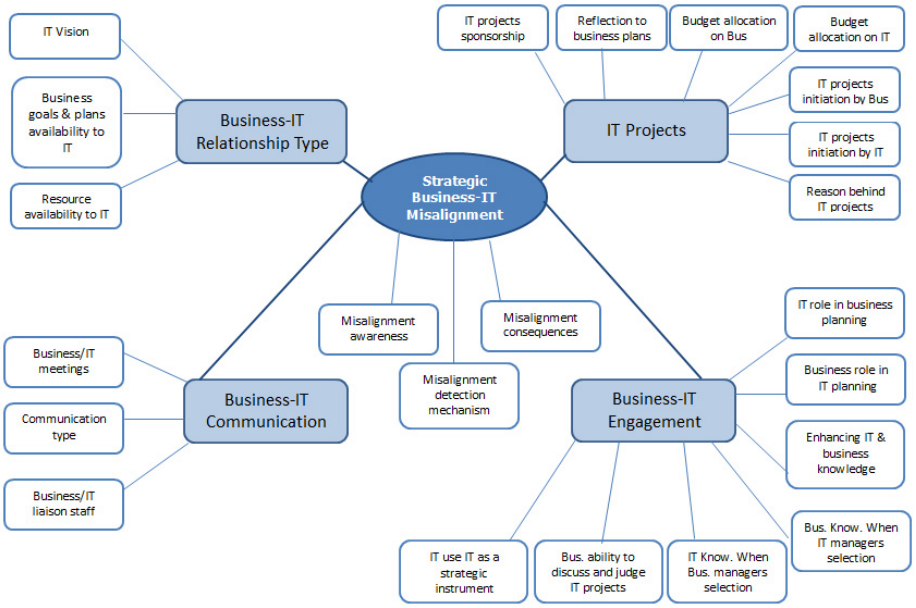

Fig. 2. Refined Constructs and Factors (Misalignment Model – Version 1.0)

Table 3. Definitions to the Five Main Constructs

Constructs	Definition
Business-IT Relationship Type	This construct represents the relationship between the business and IT. It is concerned with the availability of an IT vision [45] that is well communicated throughout the organization [16, 17], the availability of the business goals and plans to the IT [2, 10, 45], and the availability of adequate resources for the IT to support business plans [45].
IT Projects	This construct represents the initiation phase of IT projects. It is concerned with the business sponsorship to IT projects [16, 38], the degree to which IT projects reflect business plans [23, 45, 46], the allocation of the IT budget to projects [18, 38], the authorization to initiate IT projects [38], and finally investigates the reason behind most of the IT projects [2, 28].
Business-IT Communication	This construct represents the communication pattern between business and IT. It is concerned with the contact frequency between the business and IT [18], the communication process (one-way versus two-way process, formal versus informal, etc.), and the availability of business-IT liaison staff and their added value, if any [17, 47].
Business-IT Engagement	This construct represents the nature and type of engagement between business and IT, when a project is being implemented, past the initiation phase. It is concerned with the IT role is business planning [23, 46], the business role in IT planning [17, 45], the importance and

	organizational status to enhancing the business-IT shared domain knowledge [2, 17, 28, 46], the criteria followed when selecting business and IT managers, and finally, the organization's ability to use IT as a strategic instrument [17, 38, 45].
Business-IT Misalignment	This construct represents the organization's misalignment mechanisms and its consequent processes. It is concerned with the organization's awareness of any business-IT misalignments, the availability of a mechanism to check for it, if any [2], the usage frequency of such a mechanism, its outcomes, and finally the process followed when misalignment occurs.

4.3. Development of Business –IS Misalignment Instrument & Pilot Testing

The purpose of the research questionnaire is to be utilized into the case studies, as the research instrument, to extract organizations' feedback in attempts of detecting business-IS strategy misalignment. The questionnaire was developed based on the constructs depicted in Figure 2 and Table 3. The questions are structured into two parts, closed-ended and open-ended. The closed-ended section intends to acquire quick responses from the interviewees; to have a brief understanding to the factors that affect the business-IT alignment at each organization. On the other hand, the open-ended section intends to build better in-depth understanding based upon the interviewee's initial responses. Doing so would best utilize the time assigned with the interviewee and result in richer understanding.

Moreover, prior to using the questionnaire and applying it into the case studies, it was pilot-tested for assessment and validation by a representative sample of 6 respondents within the information systems field. The respondents were asked to identify any problems associated with the form, such as questionnaire format, length, questions arrangement or wordings, and to express whether they had any problems in answering the questions in general. The respondents' feedback and comments were incorporated, their minor refinements were applied and the instrument was modified accordingly[1].

4.4. Data Collection: Applying to Multiple Case Studies

For confidentiality purposes, the three multiple case study organizations are going to be anonymous throughout the research to protect the organizations' identities. All of the interviewees have more than 10 years of experience.

Company A is a local multi-branch retailer with more than 2500 employees and deals in more than 60 thousand different products/items. Two interviews were held at this organization: (i) Chief Executive Officer, and (ii) IS Manager.

Company B is a multinational fast moving consumer goods (FMCGs) that has interests in the manufacturing, marketing and distribution of grain-based snack foods, beverages, and other products. Their head office for North East Africa is based in Cairo, employing more than 10,000 employees in Egypt alone. Three interviews took place: (i) MEA Senior Sourcing Manager, (ii) NEA Procurement Manager, and (iii) IT Project and Capability Manager.

Company C is a multinational automotive dealer that accounts for 23.1% of the Egyptian market. One of Egypt's largest importers, distributors and retailers of motor vehicles. It has more than 2500 employees in Egypt alone. Two interviews took place: (i) Chief Information Officer, and (ii) Finance Director.

4.5. Data Analysis and Results

The data collected from the case studies was evaluated according to the interviewees' responses. The following section presents a collective qualitative analysis of the three case studies, in relation to the 5 previously defined construct measures for detecting business-IS strategic misalignment, followed by a color-coded illustration of the responds gathered from the business and IT respondents, figures 3.

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[1] In case of interest in the research instrument, please feel free to contact the authors.

The color codes presented indicate the following: Green colored factors mean that these factors are found to be positive, Yellow colored factors mean that these factors are found to be neutral, Red colored factors mean that these factors are found to be negative, respectively by the respondents of concern.

In regards to the Business-IT Relationship Type construct, both the business and IT respondents have mostly agreed on all of its factors. Whereas in the IT Projects construct, both business and IT respondents reached consensus to five out of the seven factors. The availability of a business sponsor to every IT project, the reflection of the business plans into the IT projects, and the allocation of the IT budget to projects based on priorities set by the business were rated as positive, while also agreed that the IT budget is rarely allocated to projects based on pure IT priorities or quick-wins, and that business managers can sometimes initiate IT projects. On the other hand, they disagreed in reference to the ability of the IT to initiate IT projects and, the reason behind most of the projects. The business respondents found that IT always had the ability to initiate IT projects, in addition to believing that realizing a competitive advantage was the main reason behind most IT projects. Instead, the IT respondents considered that IT sometimes had the ability to initiate projects, but not always as thought by the business. Also, the IT believed that realizing a competitive advantage was not always the main reason behind most IT projects.

Furthermore, in reference to the Business-IT Communication construct, both groups of respondents have agreed that the contact frequency between the CEO and CIO is satisfactory, and it allows for flexible two-way communication pattern between the business and IT. Nonetheless, the business and IT had controversial views to the availability and role of the IT-business liaison staff. While the business respondents highly believed in the organization's need for them in regards to better communication and knowledge sharing, contrastingly the IT slightly agreed. Still, some business respondents stated that IT-business liaison staff might be more beneficial at top organizational levels, as they might result in more conflicts on the operational level, causing more confusion.

Moreover, the Business-IT Engagement construct was one of the least agreed-on constructs by the two groups of respondents. Although the business finds the IT to have a limited role when it comes to their involvement in business planning, the IT respondents regard themselves to have an adequate role in such a process. On the contrary, the business respondents find that they have an influential role in the IT planning, whereas the IT respondents did not agree with such statement. They regard the business role as bounded when it comes to IT planning.

Moving to the organization' shared domain of knowledge; by enhancing the business knowledge amongst the IT managers and enhancing the IT knowledge amongst the business manager. The business respondents did not regard it as very adequate whereas the IT respondents found it to be satisfactory. This might be due to the fact that business believes that the IT lack full understanding to the essential business processes, which definitely affects the IT's support to the business plans and activities. Contrarily, the business respondents find IT knowledge not highly considered when selecting a new business manager, while the IT respondents believe that IT knowledge is fairly considered when performing such a selection.

Finally, the Business-IT Misalignment construct was the most contradictory and least agreed-on construct. The business respondents stated that they are aware of the existence of business-IT misalignment within their organizations. Conversely, they were lacking a formal mechanism or approach to frequently detect and measure such misalignments over time. As a result, they have not recognized misalignment consequences nor a process of corrective actions. On the other hand, IT respondents stated that only slight deviations from initially set plans are always expected and tolerable, and can be detected by means of the day-to-day reporting or weekly/monthly meetings. After which, corrective measures, follow ups and reporting would be performed accordingly.

Proportionately, figure 3 presents version 1.1 of the misalignment model, presenting the results of the two respondent groups, the business and the IT. The model is color-coded with average responses of the two groups, illustrating the most and least agreed on factors in respect to their effect on business-IT misalignment. This model was then presented to a panel of experts for refinements; to elicit the expertise knowledge and insights to present a more well-defined and enhanced model.

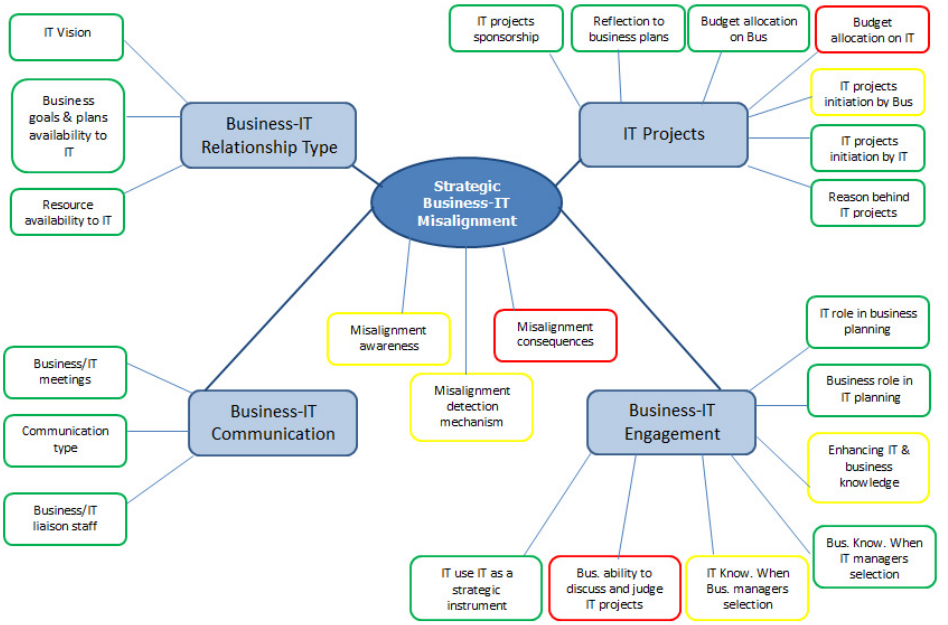

Fig. 3. Average View of Business and IT Respondents (Misalignment Model – Version 1.1)

4.6. Expert Panel

A panel of experts was specifically appointed to challenge and evaluate the conformity of the business-IS strategic misalignment model. All of the participants were from an Information Systems background, and attained more than 10 years of experience in the field. During the session, the participants were presented with the results of the three previously conducted case studies, along with the latest version of the business-IT strategic misalignment model. They were then asked to challenge the model, factor by factor, in terms of its consistency with their personal perceptions, in relation to their industrial experience, awareness and previously conducted projects. Moreover, they were given the space to unravel any concerns or struggles that they have been facing in practice that the literature did not unfold.

4.7. Discussion

After arriving at conclusions through consensus, the panel's recommendations were taken into consideration and the model was modified accordingly. For readability and organizational purposes, the factors to every construct will be tagged by either: Positive Change, indicating the panel's view that this factor was underestimated by the case studies respondents. No Change, indicating the panel's consensus with the case studies respondents to this factor's rating. Negative Change, indicating the panel's view that this factor was overestimated by the case studies respondents. Thereafter the discussion, figure 4 presents a refined, well-defined business-IT misalignment model.

Business-IT Relationship Type:

IT Vision was negatively changed. The panel perceived it as optimistically rated. Based on their experiences, a high ratio of organizations does not have an IT Vision as IT is considered more of a supportive function. Moreover, although communicating the business goals and plans to their teams was found to be satisfactory, ensuring the IT's alignment to these business goals and plans is a different matter to be discussed in the business-IT misalignment construct. Additionally, the experts found the IT departments to be somewhat understaffed. This might be due to the trend of IT outsourcing which limits the local IT employees of an organization. Furthermore, when evaluating the Business-IT relationship in relation to the other constructs, the panel agreed that the IT's ability to use IT as a

strategic instrument factor within the Business-IT engagement construct, should be moved to the Business-IT relationship construct. Since the IT's ability to use IT as a strategic instrument is highly dependable on the IT vision and the role set to the IT within the organization.

IT Projects:

IT Projects sponsorship factor was negatively changed. Sponsors are always assigned to projects regardless the project scope. Still, the controversy exists in many projects when the sponsor is mistakenly chosen, hence not providing the necessary management and support for the project to succeed.

IT Projects reflection to business plans was in consensus with the experts perceptions and closely related to the reason behind IT projects. Whether the reason behind an IT project is cost leadership or differentiation, they both lay under Porter's generic strategies. Thus, regardless the target of the business plans, all projects contribute to realizing a competitive advantage in one way or another.

Moreover, since IT should always follow the business, it was rational to the panel to allocate the IT budget to projects based on priorities set by the business. Nevertheless, these are minimal cases to which IT budget can be allocated to projects based on pure IT priorities. Those can include database maintenance, systems' update, IT personnel recruitment and such. Both factors received no changed.

In reference to that, IT projects are commonly initiated by the business management and then communicated to the IT. Even in cases when IT initiates advantageous solutions, these projects might never be considered without the support of a strong business case. Accordingly, IT officials become rarely legitimate to initiating projects.

Having that said, business-IT misalignment problems usually arise when IT is not involved in the project initiation phase. The decision making should be a mutual process. One that reflects the business's needs, along with the IT's capabilities and knowledge. This, IT projects consist of two main phases. The first is the project driver, which is the needs or requirements set by the business. The second is the implementation, which is led by the IT. Further elaboration to this topic is conducted later in the Business-IT Engagement construct.

Nevertheless, when evaluating the IT Projects construct overall, the experts found two essential factors were missing. First, a factor that targets IT Projects Scope Control, and second, a factor that targets Organizational Change Management when initiating an IT Project. The rationale behind these two extra factors is mapped to the failure frequencies of industrial IT Projects. The experts agreed that these were the most commonly found reasons to projects failure.

A scope control factor is necessary to ensure that an IT project scope would not creep as a result of the frequent changes in the requirements. Nevertheless, scope control can be ensured through the freeze of requirements. Moreover, organizational change management is also critical to ensure a well prepared organization, including its people, culture and structure, to move forward and adopt change.

Business-IT Communication:

The means by which business and IT heads meet to ensure business-IT alignment might by a sufficient number of meetings. However, the extent to which these meetings are efficient or not is a different matter. Additionally, the communication pattern is usually a two-way communication process that includes both formal and informal settings.

Business-IT Engagement:

IT might slightly have a role in business planning. However, this role is defined depending on the organizational size and the IT maturity. The larger the organization, the more mature is the IT role and judgment is expected to be. Nevertheless, the IT role is only limited to the validation of the business plans, in reference to the feasibility of conducting them, but not in initially taking part in the business planning. Hence, this factor encountered negative change since it contradicts with the case studies findings

On the other hand, the business almost has no role in IT planning, which can be related to the level of awareness and understanding the business has on IT. Still, external consultancy can be engaged in such an activity to reflect the industry related best practices. This is still a very rare practice, especially in developing countries as Egypt. Hence, this factor as well encountered negative change.

That being said, business-IT liaison staffs usually exist in organizations in a form of external consultancy. Although this factor has been initially located within the Business-IT Communication construct, the panel of experts settled on moving it from the shallow level of communication to a more significant one, which is the engagement and implementation.

Moreover, the liaison staff factor was found to be closely coupled to the newly added organizational change management. Since the uncommon language between business and IT is the number one reason to projects failure, it was considered as optimistically rated and hence encountered negative change.

Further evaluating the Business-IT Engagement construct, the experts reached consensus in changing the format of the later three factors, namely: enhancing IT and business knowledge, considering business knowledge when selecting an IT manager, and considering IT knowledge when selecting a business manager. They proposed splitting those three measures into two, namely: considering business knowledge when selecting an IT manager and enhancing it, and considering IT knowledge when selecting a business manager and enhancing it. While the factor of considering business knowledge when selecting an IT manager and enhancing it, was comprehended as frequently existing in practice, considering IT knowledge when selecting a business manager and enhancing it, on the contrary is by far not a concern in practice.

Business-IT Misalignment:

In accordance to panel of experts, almost 70-80% of the organizations are aware of business-IT misalignment existence in their organizations. Nevertheless, this did not urge them to develop preventive means to misalignment. This might be due to the low misalignment detection frequency. In other words, business-IT misalignment detection takes place mostly when getting closer to closing a project. Moreover, once misalignment is detected, either through some analysis or a set of KPIs, there is no concrete manner or process to be followed to corrective this misalignment. Nevertheless, the awareness of business-IT misalignment in itself can be considered a type of prevention. If organizations are aware, they will be able to detect misalignments as early as possible.

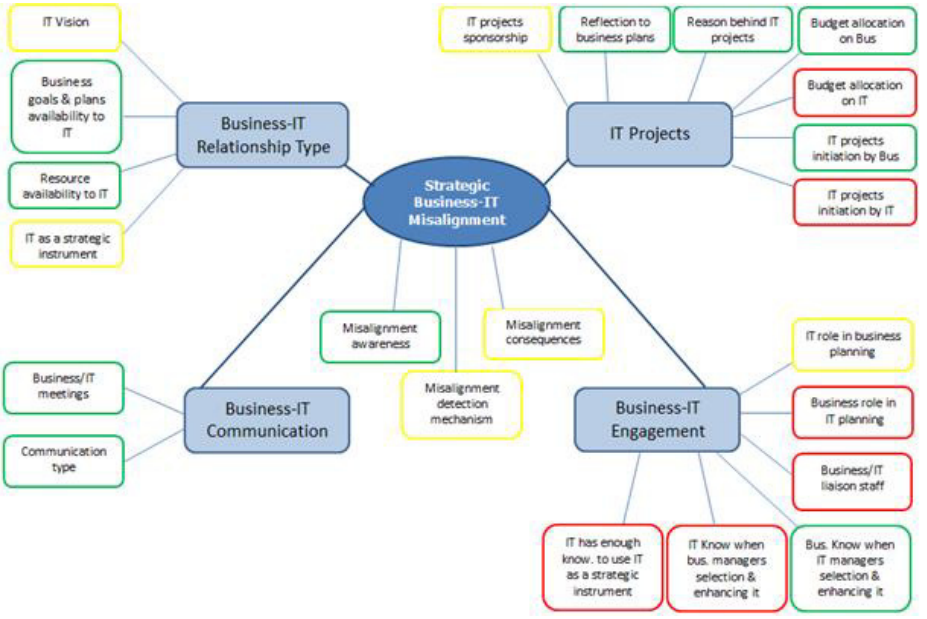

Fig. 4. Refined Business-IS Misalignment Model – Version 2.0

5. Conclusion

Although being rich with several alignment models and frameworks that need to be connected in some way to achieve better strategic alignment, there is little in the literature at present that explains what managers and practitioners should do with these frameworks other than understand them conceptually [3]. Additionally, the existing models address how organizations can achieve alignment, but with very little contribution on how to identify and correct misalignment [4]. Thus, the main objective of this study was to addresses the alignment concern by focusing on the problem of understanding and managing the misalignments and the factors that compromise the achievement of business-IS alignment.

Relating to this objective the study was conducted in a sequence of steps. After the relevant literature was explored in order to identify a specific research problem and formulate the aforementioned research question, a three-phased procedure was conducted to arrive at the business-IS misalignment model: (i) the conceptual model development, (ii) the multiple case studies, and (iii) the model refinement. Thus, resulting in a threefold contribution. In one aspect, the proposed model adds to the body of knowledge, by providing a research model that encompasses the main aspects and dimensions of business-IS misalignment research. On the other hand, constructing the model has given insights to prospect researchers on the availability of a summary of the latest dimensions and attributes emerging from the business-IS strategy misalignment field of research. Finally, providing an easy to use model that enables managers and practitioners better understand, become aware of business-IT misalignment, and easily detect the areas of improvements to enhance the alignment level existing among the business and the technological assets of an enterprise.

Nevertheless, since the study conducted a case study approach, the findings of the research cannot be generalized as it studies and tests specific elements related to a specific situation. Moreover, the data collection round of the interviews with the business and IT respondents might have been biased considering that the two groups were aware interviews were conducted with the other party as well as with other organizations. Thus, this might have affected their transparency in reflecting the organization's true as-is situation. Additionally, the respondents have not totally shared all the information of concern due to their organizations' confidentiality regulations; not willing to jeopardize its competitive advantages. In addition, due to the time limitations against the large scope associated, each of the misalignment factors were considered of equal weights. Nevertheless, each of these factors needs further investigation.

6. Future Work

Longitudinal research investigations can be conducted to study the organizations' developmental trends across a long life span for better implications of the strategic misalignment. This would enable generating more concrete causal relationships between the different business-IS misalignment factors and the organizations' changing levels of alignment. Second, to increase the reliability and validity of the proposed model, more objective criteria of measurement, such as data from implemented project portfolios can be incorporated to lessen the informants' subjectivity.

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